

REMARKS

Claims 1-3, 6, 7, 9-14 and 16 are pending in the application. By this Amendment, claims 1, 6, 9, 10, and 16 are amended, and claim 7 is cancelled. Reconsideration in light of the above amendments and the following Remarks is respectfully requested.

Entry of this Amendment is proper under 37 CFR §1.116 since it: (a) places the application in condition for allowance (for the reasons discussed herein); (b) does not raise any new issue requiring further search and/or consideration since it amplifies issues previously discussed and claimed throughout prosecution; (c) satisfies a requirement of form asserted in the previous Office Action; (d) does not present any additional claims without canceling a corresponding number of finally rejected claims; and (e) places the application in better form for appeal, should an appeal be necessary. The Amendment is necessary and was not earlier presented because it is made in response to arguments raised in the Final Rejection.

Claims 6, 9, and 16 are amended to clarify the antecedent basis of the terms in the claims. Claims 1 and 10 are amended to further clarify the patentable and distinguishing features of the invention with respect to the applied art. Accordingly, Applicant respectfully submits that the claims should be entered as the claimed invention defines allowable subject matter and places the application in condition for allowance.

The Office Action rejected claims 1-3, 6, 7, 9-14 and 16 under 35 USC §103(a) over Applicant's Admitted Prior Art (AAPR) and US Patent No. 4085664 to Farfaglia. These rejections are respectfully traversed.

Applicant respectfully submits that the invention, as set forth in the claims herein, defines allowable and patentable subject matter. As discussed hereinafter, favorable reconsideration and prompt allowance of the application are respectfully requested.

The invention relates to a mandrel for use in power generation equipment. In particular, and as set forth in the claims of the application, the invention is directed to a universal mandrel system that comprises a core mandrel having an outside diameter and at least one shaft on opposing sides of the core mandrel for a drive interface; a plurality of

adapter sleeves each having an inside diameter sized to engage the core mandrel outside diameter across an entire width of the adapter sleeves, where the plurality of adapter sleeves comprise varying exterior dimensions interchangeably engageable with the core mandrel, and an interlocking mechanism formed on one of the core mandrel and the selected one of the adapter sleeve. Only one of the adapter sleeves engages the core mandrel at a time, so the one adapter sleeve is selected to accommodate varying size part diameters. Further, the interlocking mechanism is secured between the core mandrel and the selected one of the adapter sleeves so the interlocking mechanism prevents the selected adapter sleeve from rotating relative to the core mandrel. Moreover, at least one of the plurality of adapter sleeves is structurally configured to serve as an intermediate expansion rate medium to buffer a thermal mismatch between a composite component and an interfaced metallic component.

The Office Action rejected claims 1-3, 6, 7, 9-14 and 16 under 35 USC §103(a) over Applicant's Admitted Prior Art (AAPR) and US Patent No. 4085664 to Farfaglia. Applicant respectfully traverses this rejection on the grounds that the alleged combination does not teach, suggest, or disclose the invention as set forth herein.

The Office Action alleges that the AAPR discloses mandrels of varying diameters. Applicant does not take issue with the Office Action's interpretation of the AAPR as set forth on page 2 of the Office Action. However, Applicant respectfully submits that the Office Action's interpretation of Farfaglia, and its alleged combination with AAPR does not teach, suggest, or disclose the invention as set forth in the claims.

Farfaglia discloses a container forming apparatus, which includes a universal mandrel, as set forth in Farfaglia figures 2-4. Initially, Applicant respectfully submits that Farfaglia is not directed to mandrel structure matters, but is more related to container forming machines. Applicant respectfully submits that there is nothing in Farfaglia to lead a person of ordinary skill in the art to rely on a container forming machine to address power generation matters, including mandrel structure. Applicant respectfully submits that the mere mention of a "mandrel" structure in Farfaglia does make it relatable to power generation equipment matters. Therefore, Applicant respectfully submits that Farfaglia

under the guidelines, precedents, case law, or statutes, such as 35 USC §103, cannot logically, technically, or legally be used in a proper rejection.

Further, the Office Action relies on Farfaglia figures 3 and 4 in the alleged combination, in an attempt reconstruct Applicant's invention. Applicant respectfully submits that Farfaglia discloses a mandrel structure with a core 41 and a tubular sleeve 47, which is spaced from the core 41. See col. 6, lines 6-10, where the Farfaglia teachings are express that the core 41 and the sleeve 47 do not contact (emphasis added). Accordingly, Applicant respectfully submits that these Farfaglia teachings expressly teach away from the recited feature of the claimed invention, namely, "sleeves each having an inside diameter sized to engage the core mandrel outside diameter across an entire width of the adapter sleeves". Accordingly, Applicant respectfully submits that the claimed invention sets forth structure and features of a mandrel assembly, including and at least one shaft on opposing sides of the core mandrel for a drive interface that the proposed combination does not teach, suggest, or disclose.

Moreover, Applicant respectfully submits that Farfaglia does not teach, suggest, or disclose the construction of the adapter sleeves, as recited in the claims. Applicant respectfully submits that Farfaglia does not teach, suggest, or disclose the configuration, structure, or intended functioning of the adapter sleeves. In particular, Farfaglia does not teach, suggest, or disclose the at least one of the plurality of adapter sleeves is structurally configured to serve as an intermediate expansion rate medium to buffer a thermal mismatch between a composite component and an interfaced metallic component.

Applicant respectfully submits that the Office Action's reliance on Farfaglia at does not teach, suggest, or disclose the adapter sleeves as recited in the claims. Additionally, Applicant respectfully submits that the Office Action's reference to the Farfaglia interlocking feature is a separate element, end plate 48, which is used to connect the core 41 and the sleeve 47 does not teach, suggest, or disclose the claimed features, as embodied by the invention, and set forth in the claims. The Farfaglia end plate 48 is not an interlocking mechanism formed on one of the core mandrel and the selected one of the adapter sleeve. Moreover, the Farfaglia end plate 48 cannot be formed on one of the core mandrel and the

selected one of the adapter sleeve as it will not function as intended by Farfaglia. In Farfaglia, if the end plate 48 is "formed on" the core 41, the sleeve 47 will not be positionable on the core 41. Further, if the end plate 48 is "formed on" the sleeve 47, the express interrelation of the core 41 and the sleeve 47 is not possible. Therefore, Applicant respectfully submits that Farfaglia does not teach, suggest, or disclose either one of the mandrel and adapter plate, as claimed.

Furthermore, Applicant respectfully submits that Farfaglia does not teach, suggest, or disclose the interlocking mechanism formed on one of the core mandrel and the selected one of the adapter sleeve. Applicant respectfully submits that the Office Action's reliance on Farfaglia at col. 2, lines 27-47 does not teach, suggest, or disclose the interlocking mechanism as recited in the claims. The Farfaglia interlocking feature is a separate element, end plate 48, which is used to connect the core 41 and the sleeve 47. The Farfaglia end plate 48 is not an interlocking mechanism formed on one of the core mandrel and the selected one of the adapter sleeve. Moreover, the Farfaglia end plate 48 cannot be formed on one of the core mandrel and the selected one of the adapter sleeve as it will not function as intended by Farfaglia. In Farfaglia, if the end plate 48 is "formed on" the core 41, the sleeve 47 will not be positionable on the core 41. Further, if the , if the end plate 48 is "formed on" the sleeve 47, the express interrelation of the core 41 and the sleeve 47 is not possible. Therefore, Applicant respectfully submits that Farfaglia does not teach, suggest, or disclose the mandrel as claimed.

Accordingly, Applicant respectfully submits that the Office Action's purported combination of AAPR and Farfaglia does not teach, suggest, or disclose the mandrel as claimed. Withdrawal of the rejection under 35 USC §103 is respectfully submitted and allowance of the pending claims is respectfully requested.

Dependent claims set forth in the application are believed to be allowable for at least the reason that these claims depend from allowable independent claims of the application.

The prior art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

In view of the foregoing, Applicants respectfully submit that the application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are respectfully requested.

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number below.

AUTHORIZATION TO DEBIT ACCOUNT

It is believed that no extensions of time or fees for net addition of claims are required, beyond those, which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefore (including fees for net addition of claims) are hereby authorized to be charged to deposit account no. 070849.

Respectfully submitted,

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